

## Abstract

A trapping device is disclosed which is arranged in a vacuum exhaust system (6) for removing gaseous impurities contained in the exhaust gas flowing through the vacuum exhaust system (6) which has a vacuum pump (36) for vacuum exhausting a processing unit (10) wherein a certain process is conducted on a semiconductor wafer. The trapping device comprises an impurity collecting chamber (50) arranged along the exhaust passage in the vacuum exhaust system (6) and a nozzle means (64) which injects a working fluid that is in a supersonic state due to adiabatic expansion for mixing the fluid with the exhaust gas and lowering the temperature of the exhaust gas to or below the critical points of the impurities within the impurity collecting chamber (50).